Toward a further understanding of drivers of customer loyalty across economic conditions, industries, firms, and customers

Ou, Yi-Chun

Chapter 4

4 THE ROLE OF CUSTOMER EMOTIONS IN CREATING CUSTOMER LOYALTY[12]

4.1 Introduction

As winning both business and heart is a key to success in a hypercompetitive environment, more and more firms are aware of the importance of managing customer emotions (HBR Blog Network 2010). They believe that the type of marketing activities or extent of innovation matters little if they cannot emotionally connect with customers (AdAge Blogs 2005). There are two important types of customer emotions in customer decision-making: one is influenced by firms and the other is not (Esch et al. 2012; Goldstein and Strube 1994; Pham 2004; Warr, Barter, and Brownbridge 1983; Watson and Tellegen 1985). In this study, we call the former type I emotions and the latter type II emotions. Type I emotions are evoked by any episodes related to firms and hence relevant to firms. For example, J. C. Penny started a marketing campaign of "Every Day Matters" in 2007, using storytelling to evoke customer emotions. The idea is to increase customers' attention to emotions evoked by "Every Day Matters" and then translate evoked emotions to purchase decisions (New York Times_1 2007). Similarly, in order to better communicate its technological innovations to customers, Philips decides to focus on leveraging emotional connections (MarketingWeek 2012). Different from type I emotions, type II emotions are evoked from everywhere except from firms. For example, customers feel happy on a sunny day or feel sad when their favorite soccer team is defeated. Type II emotions are not influenced

[12] This chapter is based on Yi-Chun Ou, "The Role of Customer Emotions in Creating Customer Loyalty," working paper, University of Groningen.

by firms, but they are assumed to be misattributed and carried over to purchase decisions (Lerner, Small, and Loewenstein 2004). For example, given that a customer feels happy on a sunny day, then at the point of purchase it is likely that he/ she will misattribute the happiness as a valid source for the purchase decision.

Despite the increasing usage of emotion management, there are managers still questioning whether this is a right thing to do (New York Times_2 2007). The potential reason is that marketing activities are tightly interconnected with each other. Misperceiving the interactions of multiple strategies critically deteriorates the effectiveness of resource allocation (Siggelkow 2002). In this sense, managers are eager to understand whether managing emotions complements or substitutes for the existing, commonly used strategies. For example, does J. C. Penny or Philips benefit or suffer from managing customer emotions? Does customer mood (e.g., feel happy on a sunny day) influence the effectiveness of marketing activities?

To this end, we investigate the moderating impact of customer emotions in the context of customer loyalty, as loyalty strategies are broadly adopted by firms and customer loyalty is one of the most important customer metrics (Gupta and Zeithaml 2006). Loyalty protects firms from decreasing their bottom line and also helps firms grow their top line (Kumar 2010; Reichheld and Sasser 1990; Seiders et al. 2005). The customer loyalty literature has clearly defined three important loyalty drivers, i.e., so-called customer equity drivers (CEDs): value equity, brand equity, and relationship equity (e.g., Rust, Lemon, and Zeithaml 2004; Vogel, Evanschitzky, and Ramaseshan 2008). The definition of CEDs is specified in Chapter 1 (see pages 3-4). While it is generally found that CEDs are positively related to loyalty (Rust, Lemon, and Zeithaml 2004; Vogel, Evanschitzky, and Ramaseshan 2008), we know little about whether CEDs are

differentially effective for creating customer loyalty, depending on customer emotions. Answering this question contributes research on customer loyalty in two ways.

First, we provide an in-depth, empirical exploration of the moderating impact of two important types of customer emotions on the CEDs-loyalty link. The theory of the global-local style finds that customers with different valences of type I and type II emotions process information differently (e.g., Bless et al. 1996; Dijkstra et al. 2012; Förster, Liberman, and Kuschel 2008). Namely, there is a link between positive valence and the global style and a link between negative valence and the local style. We assume that this may differently influence how customers process the information of CEDs when making loyalty decisions. In addition, although type I and type II emotions similarly influence information processing, they are different in the manageability and relevance. Type I emotions are more manageable and relevant to firms than type II emotions. In this sense, we are interested in whether these differences would lead to different moderating impacts of type I and type II emotions. To our knowledge, very few marketing studies so far have extensively tested the interactions of loyalty strategies and type I as well as type II emotions (see Table 4.1). One exception is a study of Smith and Bolton (2002), who examined the moderating role of type I emotions on the link between cognitive antecedents (e.g., disconfirmation and justice) and satisfaction.

Second, to extend research on the role of emotions in marketing (Bagozzi, Gopinath, and Nyer 1999), we reexamine the main effects of emotions on customer loyalty in a broader sense, taking value equity, brand equity, relationship equity as well as both positive and negative valence of emotions into account, as shown in Table 4.1. Because firms have more influences on type I than on type II emotions, previously studies usually consider type I emotions, rather than

type II emotions, as a valid loyalty driver. Based on this, we also assume that consider only type I emotions have the main effect on customer loyalty.

Against this background, we build on the model of Rust, Lemon, and Zeithaml (2004) by considering type I and type II emotions as potential moderators and type I emotions as additional CEDs (see Figure 4.1). Both type I and type II emotions are examined in a valence-based approach, i.e., positive and negative valence. We conduct three studies to test the hypotheses. In Study 1, we examine type I emotions by using a large-scale customer dataset. This dataset includes 102 leading firms across 18 service industries. In Study 2, we implement a mixed design: we manipulate type II emotions by showing videos (between subjects) and further manipulate CEDs and measure customer loyalty in a conjoint experimental design (within subjects). In Study 3, to test type I and type II emotions simultaneously, we collect additional customer data in the lottery industry. The reason for choosing a lottery industry is that emotions are enormously experienced by customers/ players in this context (Mageau et al. 2005; Zeelenberg and Pieters 2004). Our data support the moderating role of type I emotions, but do not support the moderating role of type II emotions. Specifically, the CEDs-loyalty link is mitigated by positive valence of type I emotions. This implies that using both positive emotions and CEDs cannot create strategic synergy. Also, it implies that firms scoring low in CEDs may benefit from evoking positive emotions because customers with positive emotions pay less attention to CEDs. In addition, the CEDs-loyalty link is strengthened by a negative valence of type I emotions, implying that CEDs may lessen the negativity of negative valence. This is an important finding for service industries. Service industries may lessen the negativity of uncontrollable bad services by enhancing perceived CEDs. Additionally, we find that type I emotions significantly contribute to explaining the variance of customer loyalty beyond CEDs,

Table 4.1 Prior Empirical Studies Concerning Emotions in Customer Satisfaction and Customer Loyalty

Studies	**Type I emotions as Main Drivers**			**Customer Emotions as Moderators**			
	Positive valence	*Negative valence*	*Include other drivers*	*Type I emotions*		*Type II emotions*	
				Positive valence	*Negative valence*	*Positive valence*	*Negative valence*
Customer satisfaction as the dependent variable							
Westbrook 1987	✓	✓	VE	×	×	×	×
Oliver 1993	✓	✓	VE	×	×	×	×
Kempf 1999	✓	✓	BE	×	×	×	×
Mattila and Enz 2002	✓	✓	×	×	×	×	×
Smith and Bolton 2002	×	✓	VE	✓	×	×	×
Homburg, Koschate, and Hoyer 2006	✓	✓	VE	×	×	×	×
Customer loyalty as the dependent variable							
Oliver, Rust, and Varki 1997	✓	×	VE	×	×	×	×
Chaudhuri and Holbrook 2001	✓	×	BE	×	×	×	×
Zeelenberg and Pieters 2004	×	✓	VE	×	×	×	×
Park et al. 2010	✓	×	BE	×	×	×	×
Batra, Ahuvia, and Bagozzi 2012	✓	×	BE	×	×	×	×
Romani, Grappi, and Dalli 2012	×	✓	×	×	×	×	×
Current study (customer loyalty)	✓	✓	**VE, BE, RE**	✓	✓	✓	✓

VE: value equity; BE: brand equity; RE: relationship equity

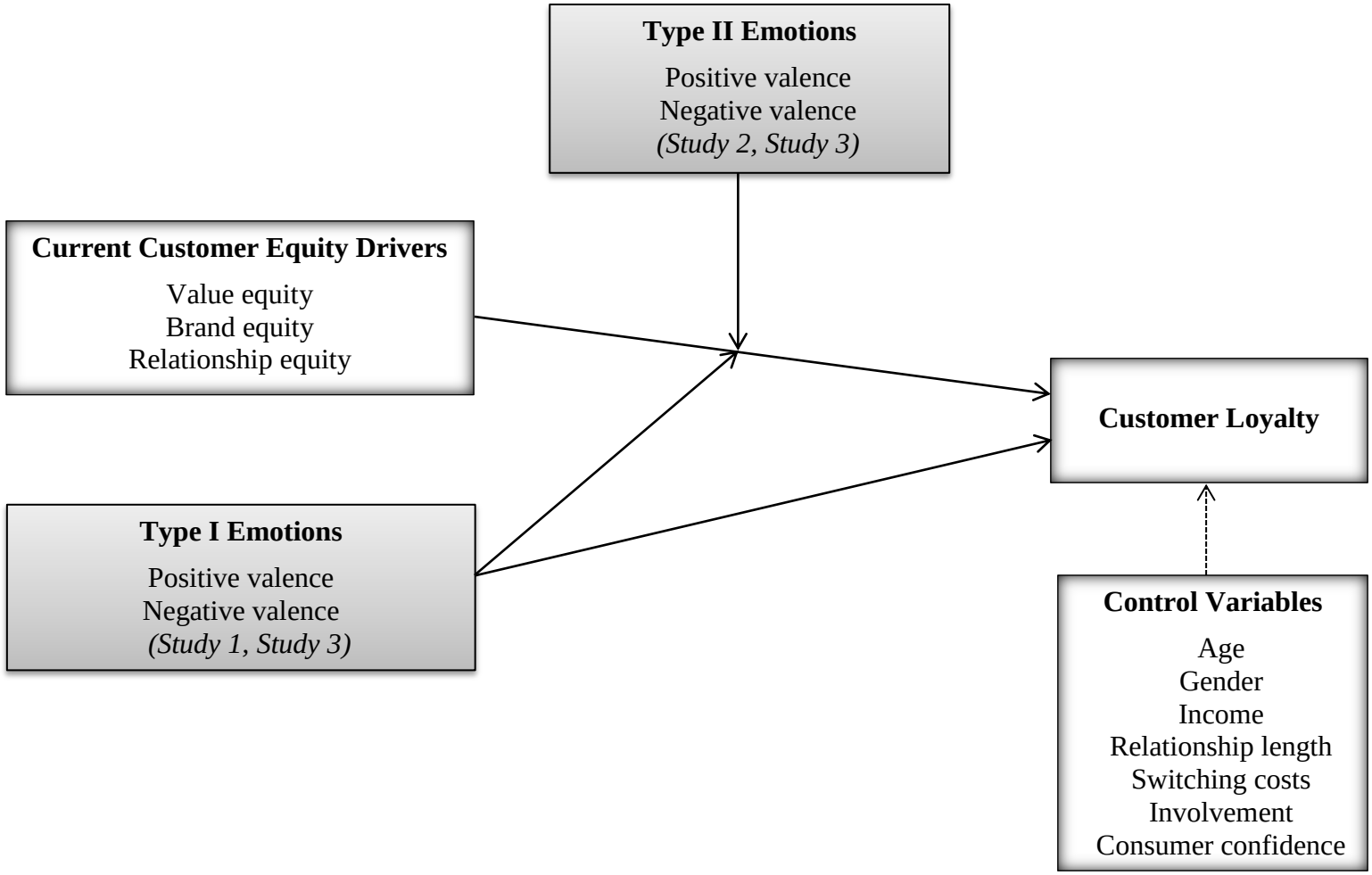
implying that trade-offs of competing marketing strategies should also take customer emotions into account. As a result, we suggest to managers how they can combine strategies of CEDs and customer emotions in an effective way. We also distinguish the moderating impact of type I and type II emotions. Finally, we provide further evidence of type I emotions as additional loyalty drivers beyond value equity, brand equity, and relationship equity.

4.2 Theoretical Background

4.2.1 Customer equity drivers and type I emotions: similarities and differences

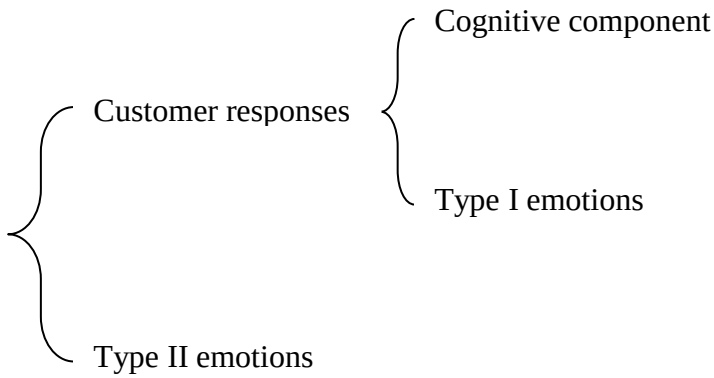
Customers have cognitive and emotional responses toward stimuli generated by firms, which jointly explain subsequent decision making (Homburg, Koschate, and Hoyer 2006; Oliver 1993), as shown in the upper part of Figure 4.2. Emotional responses here refer to type I emotions because type I emotions are influenced by firms and assumed to be responses toward stimuli generated by firms. We realize that CEDs are not completely independent from type I emotions because CEDs also have their emotional dimension, for example, customer delight for value equity (Oliver, Rust, and Varki 1997), brand attachment for brand equity (Thomson, MacInnis, and Park 2005), and customer gratitude for relationship equity (Palmatier et al. 2009). However, for two reasons, we argue that current CEDs tend to represent cognitive responses and capture only limited type I emotions. First, the existing studies tend to examine CEDs in a cognitive approach (Rust, Lemon, and Zeithaml 2004; Vogel, Evanschitzky, and Ramaseshan 2008). Customers are asked about their judgment on and their evaluation of information concerning CEDs. Second, the emotional dimension of current CEDs may "represent only a tiny subset of the emotions and feelings of interest...." (Holbrook and Hirschman 1982, p.136) since type I emotions are generated from any episodes in consumption (Berry, Carbone, and Haeckel 2002).

Figure 4.1 Conceptual Framework



We will empirically test whether current CEDs and type I emotions are different factors underlying customer responses. This is important to justify the moderating role of type I emotions on the CEDs-loyalty link, as moderators and predictors should be distinct constructs (Baron and Kenny 1986). This also justifies the examination of the main effect of type I emotions on customer loyalty beyond CEDs.

Figure 4.2 Classification of Customer Responses and Emotions



4.2.2 Customer emotions as moderators: global-local style

Social psychological research commonly converges and finds that positive and negative valence of emotions (e.g., both type I and type II emotions) trigger different styles of information processing. There is a link between positive valence and the global style and a link between negative valence and the local style (Bless et al. 1996; Dijkstra et al. 2012; Förster, Liberman, and Kuschel 2008; Förster, Liberman, and Shapira 2009; Gasper and Clore 2002; Huntsinger, Clore, and Bar-Anan 2010; Kuhbandner, Lichtenfeld, and Pekrun 2011; Monga and John 2008; Storbeck and Clore 2005). The global style broadens ideas and widely activates semantic associations (particularly including weak or remote ones), implying that global thinkers are more

likely to integrate and capture the general meaning of extensive stimuli (Bolte, Goschke, and Kulh 2003; Förster, Liberman, and Kuschel 2008; Förster, Liberman, and Shapira 2009). However, the local style narrows ideas and restricts the spread of semantic associations (focusing only on strong or proximal ones), implying that local thinkers are more likely to compare and capture the specific meaning of limited existing stimulus (Bolte, Goschke, and Kulh 2003; Förster, Liberman, and Kuschel 2008; Förster, Liberman, and Shapira 2009). To conclude, the global-local style proposes that positive valence prefers global knowledge structures in decision-making and promotes flexibility and extensity, whereas negative valence prefers local knowledge structures and concentrates on specific available information at hand (Cohen, Pham, and Andrade 2008).

How are different styles of information processing related to the moderating impact of emotions on the CEDs-loyalty link? Value equity, brand equity, and relationship equity reflect customer evaluations in different marketing activities (Rust, Lemon, and Zeithaml 2004). Each of CEDs specifies different substantive features and details of firms. Given that customers with positive valence tend to think globally and abstractly, the global-local style proposes that these customers are more likely to formulate general ideas and to broaden knowledge structures by including not only each of CEDs but also extensive cues. In this regard, the role of each of CEDs should be relatively less prominent in loyalty decisions when extensive cues are taken into account. On the other hand, given that customers with negative valence tend to think locally and concretely, they are more likely to use specific details and narrowing knowledge structures by including existing cues. Since each of CEDs specifies different details of brands and is also a critical loyalty driver for customers, it should become important for negative-emotion customers. Initial evidence provided by Smith and Bolton (2002) shows that customers with negative

valence weigh existing cognitive antecedents of satisfaction more than those with less negative or neutral valence. In conclusion, we expect that the impact of each of CEDs on loyalty intentions is weakened by positive valence and strengthened by negative valence. Therefore:

H1: Positive valence of emotions weakens the effect of (a) value equity, (b) brand equity, and (c) relationship equity on customer loyalty.

H2: Negative valence of emotions strengthens the effect of (a) value equity, (b) brand equity, and (c) relationship equity on customer loyalty.

4.2.3 Similarity and difference between type I and type II emotions as moderators

As discussed, social psychologists find that type I and type II emotions similarly trigger information processing (e.g., Bless et al. 1996): Positive valence of both types of emotions triggers a global style, but negative valence triggers a local style. Beyond their similarity, type I and type II emotions are different in the manageability and relevance to firms (Bosmans and Baumgartner 2005). Type I emotions are more manageable and relevant to firms than type II emotions. The empirical studies also show that the relevance is crucial for customers to decide whether emotions are infused into judgment and decision-making (Bosmans and Baumgartner 2005; Pham 1998). This may imply that the moderating impact of type I emotions on CEDs-loyalty may be more salient than that of type II emotions, while both types of emotions trigger similar information processing. Namely, *Hypothesis 1* and *2* may be likely supported by type I emotions. We will empirically examine whether the moderating impact of type I and type II emotions is different.

4.2.4 Main effect of type I emotions: feeling-is-for-doing

How do type I emotions influence customer loyalty decisions? Emotions are human beings' phylogenetic reactions through a bio-regulation process (Pham 2004). In a goal-directed

approach, Zeelenberg and Pieters (2004) propose that the impact of emotions on decision-making is mainly through "feeling-is-for-doing." "Feeling-is-for-doing" indicates that emotions have the informational (i.e., how do I feel about the current choice?) and motivational (i.e., what do my emotions tell me to do next?) function and in turn help people make decisions (Pham et al. 2001; Pham 2004; Zeelenberg et al. 2008). Positive valence informs a favorable environment and facilitates approach tendencies. Negative valence informs an unfavorable environment and facilitates avoidance tendencies. For example, customers with positive valence perceive the attainment of the goal in the current choice. As a result, a bio-regulation process guides customers to maintain positive valence and motivates them to continue the current choice. However, customers with negative valence perceive the failure in goal attainment in the current choice. They hence tend to decrease negative valence and are motivated to terminate the current choice. Based on "feeling-is-for-doing", we formulate the hypotheses of the relative impact of type I emotions on customer loyalty as follows:

H3: Positive valence of type I emotions has a positive impact on customer loyalty beyond value equity, brand equity, relationship equity, and negative valence of type I emotions.

H4: Negative valence of type I emotions has a negative impact on customer loyalty beyond value equity, brand equity, relationship equity, and positive valence of type I emotions.

4.3 Overview of Studies

Three studies test the hypotheses. Study 1 validates the moderating effects of (*H1* and *H2*) and the main effects (*H3* and *H4*)) of type I emotions. Study 2 tests the moderating effects of type II emotions (*H1* and *H2*). Study 3 provides a replication of testing type I and type II emotions simultaneously.

4.3.1 Study 1: type I emotions

To examine type I emotions, we use the DCPI data in 2012, a large-scale customer dataset of 102 leading Dutch firms (based on revenues) from 18 service industries. Respondents were randomly chosen and asked to rate multiple instances of a phenomenon (i.e., relationships with different firms – Rindfleisch et al. 2008) per industry. For each industry, a list of firms (between 4 and 13) was provided to the respondents, who chose the firms for which they are currently a customer and repeatedly answered the questions about those firms. The data encapsulate 2,274 customers with 10,497 responses, of which 53.2% are females. 17.0% of the respondents are between 18 and 29 years old, 22.7% between 30 and 39, 16.9% between 40 and 49, 26.2% between 50 and 64, and 17.1% more than 65 years old. The majority of respondents (38.7%) earns between €30,000 and €60,000 per year.

4.3.1.1 Measurement of variables

Dependent variable. The measurement of the dependent variable (loyalty intentions) is identical to that in Chapter 2 (see pages 24-25).

Customer equity drivers. The measurements of CEDs are identical to those in Chapter 2 (see pages 24-25). The reliability (Cronbach's α) of each construct of CEDs is above .73.

Type I emotions. To measure type I emotions, we ask respondents the extent to which they feel the following six specific emotions as a customer of firm Y based on the past experiences. These six emotions are commonly experienced in the consumption context (Diener and Emmons 1985; Richins 1997) and measured by seven-point scales (1: not at all, 7: strongly): happiness, joy, and enthusiasm for positive valence; and anger, regret, and distrust for negative valence. The reliability (Cronbach's α) of the constructs of emotions is above .89. Note that the correlation coefficient of positive and negative valence is -.11. Consistent to past studies, positive and

negative valence are moderately related rather than almost perfectly correlated (Cohen, Pham, and Andrade 2008). Moreover, the principal component analysis (PCA) and confirmatory factor analysis (CFA) clearly show the presence of five dimensions of value equity, brand equity, relationship equity, positive valence, and negative valence. For the PCA, the total variance is explained by 80.0%. The CFA shows an adequate model fit (RMSEA=0.062, CFI=0.972; SRMR=0.035). These results indicate that neither emotions and CEDs nor positive and negative valence are unidimensional. In other words, emotions and CEDs are distinct constructs, justifying the further examination of emotions as the moderators of the CEDs-loyalty link and as additional loyalty drivers beyond CEDs.

We use the averages of the items to form the constructs of CEDs and emotions. Table 4.2 summarizes the descriptive statistics and correlation coefficients of the main constructs across all 18 industries, instead of per industry. This is due to the space limitation. We also control for age, gender, income, relationship length, switching costs, involvement, and consumer confidence. An overview of the relevant questions is provided in Appendix 1. To test for common method bias (CMB), we use Harman's one-factor test (Podsakoff and Organ 1986). The result shows that multiple factors are found and there is no dominant factor explaining the majority of the total variance. This provides evidence that CMB is not a serious concern in the data.

4.3.1.2 Model specification and results

We analyze the data in two steps. First, we use a multilevel model to analyze the data of each industry and obtained 18 multilevel results. Second, we adopt a meta-analysis to summarize the 18 multilevel results. The reason for this is that we aim to examine whether the concerned effects in the conceptual model can be generalized across all industries, rather than focus on the results

of the individual industry. Hence, the results of the meta-analysis are used for testing the hypotheses. The specification of these two steps is as follows.

Multilevel analysis. To analyze the data of each industry, we adopt a random-intercept multilevel analysis. The data are hierarchical, i.e., responses to each firm (level one in the data) are nested within customers (level two in the data). The rows of "Respondents" and "Responses" in Table 4.3 show the sample size of level two and level one, respectively, of each industry. For example, for the insurance industry, the sample size of level two is 104 customers and the sample size of level one is 1,155 responses to different insurance firms. The following equations represent the used random-intercept multilevel model. Based on the same reason stated on page 27, we transform the dependent variable with a logarithm, $Ln(^{LI}/_{1-LI})$, to assume a linear relationship of loyalty intentions and the relevant independent variables.

$$LI_{ij} = B_{0j} + B_{1j}VE_{ij} + B_{2j}BE_{ij} + B_{3j}RE_{ij} + B_{4j}CV_{1ij} + B_{5j}CV_{2j} + R_{ij} \quad (1)$$

$$B_{0j} = \gamma_{00} + \gamma_{01}PV_{ij} + \gamma_{02}NV_{ij} + \mu_{0j} \quad (1.1)$$

$$B_{1j} = \gamma_{10} + \gamma_{11}PV_{ij} + \gamma_{12}NV_{ij} \quad (1.2)$$

$$B_{2j} = \gamma_{20} + \gamma_{21}PV_{ij} + \gamma_{22}NV_{ij} \quad (1.3)$$

$$B_{3j} = \gamma_{30} + \gamma_{31}PV_{ij} + \gamma_{32}NV_{ij} \quad (1.4)$$

Where,

LI_{ij}: loyalty intentions for firm *i* evaluated by customer *j*,

VE_{ij}: value equity for firm *i* evaluated by customer *j*,

BE_{ij}: brand equity for firm *i* evaluated by customer *j*,

RE_{ij}: relationship equity for firm *i* evaluated by customer *j*,

PV_{ij}: positive valence for firm *i* evaluated by customer *j*,

NV_{ij}: negative valence for firm *i* evaluated by customer *j*,

CV_{1ij}: a vector of firm-level *i* (level-one) control variables (i.e., relationship length, switching costs, and involvement),

CV_{2j}: a vector of customer-level *j* (level-two) control variables (i.e., age, gender, income, and consumer confidence),

R_{ij}: level-one (firm *i*) residuals,

μ_{0j}: level-two (customer *j*) residuals.

β_{0j} is the random level-one intercept; β_{1j}, β_{2j}, β_{3j}, γ_{01}, and γ_{02} are the fixed coefficients of VE_{ij}, BE_{ij}, RE_{ij}, respectively. β_{4j} and β_{5j} are a vector of coefficients corresponding to level-one and level-two control variables, respectively. γ_{00}, γ_{10}, γ_{20}, and γ_{30} are the level-two intercepts; γ_{11}, γ_{21}, and γ_{31} are the coefficients for the interaction terms of PV_{ij}; γ_{12}, γ_{22}, and γ_{32} are the coefficients for the interaction terms of NV_{ij}.

Meta-analysis. We summarize 18 multilevel results by using a meta-analysis. There are several methods for summarizing individual effects. The reasons of choosing the meta-analysis is specified in Chapter 2 on page 28 and the data analysis is described on pages 30-31.

Results of the meta-analysis. Table 4.3 shows 18 multilevel results. The interactions of CEDs and type I emotions are among the mean-centered variables. We do not discuss Table 4.3 in detail, but use it as input for the meta-analysis, of which results are shown in Table 4.4. In terms of the moderating role of type I emotions, consistent with *hypothesis 1*, the interaction between positive valence and CEDs is significantly negatively related to loyalty intentions (-.07 for VE×PV, -.07 for BE×PV, -.08 for RE×PV, $p < .01$). Likewise, consistent with *hypothesis 2*, the interaction between negative valence and CEDs is significantly positively related to loyalty intentions (.09 for VE×NV, .11 for BE×NV, .12 for RE×NV, $p < .01$). In addition, across 18 industries, the summary main effects of CEDs and type I emotions on loyalty intentions are

significant ($p < .01$): .25 for value equity, .27 for brand equity, .33 for relationship equity, .24 for positive valence, and -.19 for negative valence. The results support *hypothesis 3* and *4* that positive and negative valence of Type I emotions independently and significantly influence loyalty intentions beyond CEDs.

We conducted two robustness checks to test whether the obtained results are robust: (1) we used a multilevel model by including all 18 industries; (2) we estimated the models on a randomly chosen 90% and 80% of the sample to prevent type I error, since we have large-scale data. Most results of the robustness checks are consistent with the obtained results, except that the interaction of VE and NV becomes marginally significant or insignificant, but the sign remains positive.

Study 1 shows that the effects of CEDs are differentially effective, depending on perceived valence of type I emotions. Also, type I emotions significantly contribute to explaining the variance of loyalty intentions beyond CEDs. Since we do not have the measures of type II emotions in the large-scale customer data, we conduct in Study 2 an experiment designed to explicitly manipulate type II emotions and examine how they moderate the effects of CEDs on loyalty intention.

4.3.2 Study 2: type II emotions

Study 2 aims to test the moderating effects of type II emotions. We implement a mixed design: manipulating type II emotions by showing participants a video (between subjects) and manipulating CEDs in a conjoint setting (within subjects).

4.3.2.1 Procedure

183 students from a Dutch university participated in a lab experiment in return for either course credits or monetary rewards. We told participants that this experiment includes two unrelated

tasks and will take them about 15 minutes to complete. In the first task, we told participants that they are going to watch a short video and their opinions about the video will be collected. The videos are meant to manipulate type II emotions. We assigned participants randomly to the positive, negative, or neutral condition. On completion of the first task, participants continued with the second task. The second task measured loyalty intentions when renewing the contract with a fictional mobile-phone service provider, as using mobile-phone service is common among students. Participants were asked to imagine that they are current customers of this fictional provider. After finishing these two tasks, participants were debriefed and thanked for the participation. The data contain 63 females and the participants are between 18 and 29 years old.

4.3.2.2 Method

Type II Emotion Manipulation. We pretested the videos of funny animals (3:06), memory in Auschwitz (4:38), and earth at night (2:10) to elicit positive, negative, and neutral valence of type II emotions, respectively. "Funny animals" is a collection of funny animal behaviors. "Memory in Auschwitz" shows the pictures of the Jewish victims in Auschwitz during World War II. "Earth at night" presents how the earth looks like at night. Using videos is one of the commonly employed methods for inducing type II emotions (e.g., Bartlett and DeSteno 2006; Garg, Wansink, and Inman 2007). Concerning the potential ethical issue of Auschwitz, before participants started the experiment, we stated that "some participants will be shown a video that may be perceived as unpleasant" in the consent letter. We pre-tested whether the videos elicit the expected valence. To be comparable with type I emotions, we measured joy, enthusiasm, and happiness for positive emotions and measured anger, sadness, and irritation for negative emotions with seven-point scales (1: not at all; 7: strongly). The pre-test shows that the videos

Table 4.2 Descriptive Statistics and Correlations in Study 1 and Study 3

Study 1

Constructs	M	SD	Cronbach's α	1	2	3	4	5
1.Value equity	5.03	1.11	.76	1	.63	.56	.42	-.39
2. Brand equity	4.83	1.11	.73		1	.63	.47	-.34
3. Relationship equity	4.17	1.23	.85			1	.60	-.33
4. Positive valence of type I emotions	3.93	1.42	.94				1	-.11
5. Negative valence of type I emotions	2.39	1.33	.89					1

Study 3

Constructs	M	SD	Cronbach's α	1	2	3	4	5	6	7
1. Value equity	4.94	.92	.60	1	.26	.10	.07	-.07	.07	-.07
2. Brand equity	4.45	1.11	.53		1	.55	.40	-.23	.09	-.03
3. Relationship equity	3.56	1.32	.84			1	.60	-.24	.14	.03
4. Positive valence of type I emotions	3.37	1.41	.93				1	.004	.27	.11
5. Negative valence of type I emotions	2.99	1.53	.87					1	.04	.30
6. Positive valence of type II emotions	4.19	1.27	.87						1	-.12
7. Negative valence of type II emotions	2.37	1.37	.90							1

successfully elicited the expected valence. In the experimental context, the videos also successfully elicited expected valence. A one-way ANOVA shows that participants in the positive condition ($M_{positive\ valence}$=5.31, SD=.90; $M_{negative\ valence}$=1.60, SD=.76) reported more positive valence and less negative valence than those in the negative condition ($M_{positive\ valence}$=2.15, SD=0.93, F(2, 181)=164.70, $p < .01$; $M_{negative\ valence}$=4.19, SD=1.04, F(2, 181)=135.99, $p < .01$) and neutral condition ($M_{positive\ valence}$=4.39, SD=1.13, F(2, 181) = 164.70, $p < .01$; $M_{negative\ valence}$=2.02, SD=.99, F(2, 181) = 135.99, $p < .01$).

Customer Equity Drivers Manipulation. In the second task of the experiment, we first asked participants to imagine that they are current customers of a fictional mobile-phone service provider *Spector*. They were told that it is time to renew the contract. In deciding whether to renew the contract with *Spector* or not, they took three factors (i.e., CEDs) into account. Next, we used a conjoint design to manipulate CEDs, as a conjoint design has advantages of allowing multiple responses per participants and also of accounting for unobserved heterogeneity (Wuyts, Verhoef, and Prins 2009). Chapter 2 and 3 confirm the credibility and validity of the measures of CEDs across a large number of service industries, which include mobile phone-service providers. We use these measures to manipulate CEDs and randomly assign respondents to the six conditions in Table 4.5.

Table 4.4 Results of Meta-Analysis (18 industries)

Main effect	**VE**	**BE**	**RE**	**PV**	**NV**	
Summary effect[1]	0.25***	0.27***	0.33***	0.24***	-0.19***	
Moderating effect	**VE×PV**	**BE×PV**	**RE×PV**	**VE×NV**	**BE×NV**	**RE×NV**
Summary effect[1]	-0.07***	-0.07***	-0.08***	0.09***	0.11***	0.12***

*** $p < .01$ (two-tailed)
[1]: Null hypothesis: The summary effect is zero.
VE: value equity; BE: brand equity; RE: relationship equity; PV: positive valence; NV: negative valence

Following the design of Wuyts, Verhoef, and Prins (2009), we manipulate value equity, brand equity, and relationship equity with two levels (+, -). The "+ levels" refer to positive perceptions of CEDs and the "- levels" to less positive perceptions. This leads to eight (2^3) possible conditions. We exclude two conditions (i.e., +, +, +, and -, -, -) because these two conditions are the extreme scenarios for evaluating firms and may become biased referents for the other conditions.

Loyalty Intentions. We measured loyalty intentions by asking "How large is the probability that you renew the contract with *Spector*?" (Gupta and Zeithaml 2006; Rust, Lemon, and Zeithaml 2004; Wuyts, Verhoef, and Prins 2009) on 11-point scales (0= absolutely not renew the contract, 10= absolutely renew the contract). Loyalty intentions were measured after participants read each condition and are presented in Table 4.5. Each participant provided six loyalty intentions, which resulted in 1,098 responses from 183 respondents.

Analysis. We used a multilevel model for analyzing the experimental data because the data are hierarchical since the six dependent responses (level one, sample size=1,098) are nested in each participant (level two, sample size=183). Moreover, each participant provided six dependent responses, violating the independence assumption of OLS. We combined the data of the positive-, negative-, and neutral conditions. We created two dummy coded variables for the positive and negative conditions; the neutral condition is the reference group. The following equations represent the multilevel model here. Based on the same reason stated on page 27, we transform the dependent variable with a logarithm, $Ln(^{LI}/_{1-LI})$, to assume a linear relationships of loyalty intentions and the relevant independent variables.

$$LI_{ij} = B_{0j} + B_{1j}VE_{ij} + B_{2j}BE_{ij} + B_{3j}RE_{ij} + R_{ij} \quad (2)$$

$$B_{0j} = \gamma_{00} + \gamma_{01}PV_{ij} + \gamma_{02}NV_{ij} + \mu_{0j} \quad (2.1)$$

$$B_{1j} = \gamma_{10} + \gamma_{11}PV_{ij} + \gamma_{12}NV_{ij} \quad (2.2)$$

$$B_{2j} = \gamma_{20} + \gamma_{21}PV_{ij} + \gamma_{22}NV_{ij} \quad (2.3)$$

$$B_{3j} = \gamma_{30} + \gamma_{31}PV_{ij} + \gamma_{32}NV_{ij} \quad (2.4)$$

Where,

LI_{ij}: loyalty intentions for firm *i* evaluated by customer *j*,

VE_{ij}: value equity for firm *i* assigned to customer *j*,

BE_{ij}: brand equity for firm *i* assigned to customer *j*,

RE_{ij}: relationship equity for firm *i* assigned to customer *j*,

PV_{ij}: positive valence for firm *i* assigned to customer *j*,

NV_{ij}: negative valence for firm *i* assigned to customer *j*,

R_{ij}: level-one (firm *i*) residuals,

μ_{0j}: level-two (customer *j*) residuals.

β_{0j} is the random level-one intercept; β_{1j}, β_{2j}, β_{3j}, γ_{01}, and γ_{02} are the fixed coefficients of VE_{ij}, BE_{ij}, $RE_{ij,}$ respectively. γ_{00}, γ_{10}, γ_{20}, and γ_{30} are the level-two intercepts; γ_{11}, γ_{21}, and γ_{31} are the coefficients for the interaction terms of PV_{ij}; γ_{12}, γ_{22}, and γ_{32} are the coefficients for the interaction terms of NV_{ij}. We excluded gender and income as control variables, since they do not significantly influence loyalty intentions.

Table 4.3 Results of the Multilevel Analysis of Each Industry, Function of Loyalty Intentions

Variables	Insurance	Health insurance	Banking	Mobile phone	Landline phone	Energy providers	Gasoline providers	Travel agencies	Holiday resorts
VE	.64	-.70	.05	.53	-.12	.44	1.45***	-.19	.85
BE	-.02	1.01*	1.50***	.68	.06	.52	.20	.87**	.11
RE	1.68***	2.07***	2.12***	1.65***	1.34**	1.90***	.83	1.43***	1.15**
PV	.84***	.58*	.62**	1.06***	1.68***	.42	.78**	.52**	-.19
NV	-.49*	-.49	-.27	-.70*	-1.02***	-.88*	-.32	-.82***	-.66**
VE×PV	-.14	-.79**	.36	-.69**	-.42	-.37	-.51	.38	-.09
VE×NV	-.08	.17	-.63**	-.04	.02	-.52	-.15	-.15	.78**
BE×PV	-.05	.42	-.86***	.22	.30	.43	-.49	-.71***	.36
BE×NV	.59**	.07	.41	.05	.11	.24	.69*	-.17	-1.21***
RE×PV	-.28	-.20	.40**	-.49*	-.36	-.04	.65**	-.29	.14
RE×NV	.05	-.17	.73***	-.16	.03	.10	-.53*	.37**	1.08***
Gender (female)	.03	.44	.46	-.03	2.75***	1.76*	-1.27	-.12	.69
Age	.05	.33	.20	-.05	.41	.41	-.46	-.34	-.14
Income	-.49	-.85**	-.41	-.59	-.09	.81	.68	.29	.35
Relationship length	-.03	.53**	.21	.68***	.66**	.87***	.30	.16	.42**
Switching costs	.10	.05	.25	-.05	.04	.19	.55**	.46***	.36
Involvement	-.31	-.39	-.70***	1.05***	-.23	-.81*	-.01	-.12	-.16
CC	.26	-.37	-.20	.44	.13	.38	-1.13**	-.58*	-1.36***
Constant	.89	2.93	.13	3.45	-8.89**	-3.37	.474	-1.11	.08
Log likelihood: null model	-4455.69	-3221.46	-3428.22	-2237.93	-2093.02	-1771.79	-1882.02	-2509.77	-1322.00
Log likelihood	-4317.99	-3140.02	-3290.97	-2145.24	-2006.21	-1725.76	-1841.56	-2413.96	-1273.19
Respondents	104	115	230	137	104	104	104	98	101
Responses	1155	835	932	591	544	466	510	744	387

Variables	Airlines	Supermarkets	Health/beauty retailing	Department stores	Electronic retailing	Do-It-Yourself retailing	Furnishing retailing	e-booking	Online retailing
VE	-.21	.80***	1.16***	.32	.81***	.08	.36**	-.52	-.05
BE	.02	.30	-.17	-.13	-.11	.05	-.28*	.41	-.15
RE	.27	.36	.67**	.91***	.89***	.51*	.59***	.99**	.97***
PV	.19	.34	.10	-.20	.29	.01	.28**	.45	.64**
NV	-.46**	.04	.17	-.24	-.12	-.38*	.05	-1.15***	-.68**
VE×PV	.10	-.13	-.48**	.38**	-.10	.88***	-.18*	.31	-.54**
VE×NV	.56***	-.22	.76***	.21	-.03	-.43*	.02	-.38	.48*
BE×PV	-.06	-.26	.03	-.04	.19	-.46**	.14	-.67*	.30
BE×NV	.30	.46**	.04	-.15	-.05	.18	-.00	-.16	-.27
RE×PV	-.19	.19	-.07	-.37***	.24*	-.18	.03	-.00	-.19
RE×NV	-.32	-.02	-.50**	.32*	.27*	.50***	.13	.82**	.25
Gender (female)	.60	-1.14**	-.02	.14	-.24	-.87*	-.16	-.88	.16
Age	.10	.17	-.16	.09	-.33*	-.14	-.15	-.02	-.08
Income	.27	-.06	-.20	-.01	-.26	.00	.03	.29	-.61**
Relationship length	.30**	.14	.59***	.17	.08	.42***	-.20*	-.39	.46**
Switching costs	.41***	-.12	-.01	.10	.19*	.46***	.09	.42*	-.12
Involvement	-.14	-.62***	-.30	.13	-.37	-.40*	-.25*	-.62*	.49*
CC	.47*	-.80***	.16	.23	-.13	-.21	.08	-.15	.21
Constant	-5.57	4.93**	-2.33	-4.66***	2.23	-.52	.82	3.55	.72
Log likelihood: null model	-1156.49	-2151.77	-1514.24	-1168.65	-1512.35	-1471.99	-1660.56	-972.60	-1571.56
Log likelihood	-1125.81	-2106.21	-1465.95	-1140.20	-1458.11	-1439.94	-1633.28	-937.69	-1537.45
Respondents	102	101	130	106	120	105	253	104	156
Responses	393	662	474	419	497	480	628	297	483

*$p < .1$, **$p < .05$, *** $p < .01$ (two-tailed)

VE: value equity; BE: brand equity; RE: relationship equity; PV: positive valence; NV: negative valence

4.3.2.3 Results

Table 4.6 shows the results of the multilevel analysis. Consistent with prior studies (e.g., Rust, Lemon, and Zeithaml 2004; Vogel, Evanschitzky, and Ramaseshan 2008), CEDs manipulated in the conjoint design significantly positively influence loyalty intentions ($p < .01$): 1.01 for VE, .59 for BE, and .49 for RE. In terms of the moderating effects of type II emotions, compared to the neutral condition, positive valence (PV=-.14, SE=.20, $p > .1$) and negative valence (NV=-.21, SE=.20, $p > .1$) do not significantly influence loyalty intentions. In addition, our data indicate that type II emotions do not moderate the CEDs-loyalty link ($p > .1$): VE×PV=-.09, BE×PV=-.01, RE×PV=.02, VE×NV=.04, BE×NV=-.03, and RE×NV=-.11. Hence, *hypothesis 1* and *2* are not supported by our experimental data in terms of type II emotions. As a result, the data in Study 1 and Study 2 initially indicate that type I and type II emotions have differential moderating effect on the CEDs-loyalty link. Type I emotions moderate the CEDs-loyalty link, but type II emotions do not.

4.3.3 Study 3: type I and type II emotions

To replicate the findings of Study 1 and Study 2, we measure both type I and type II emotions by collecting customer data in the lottery industry in Study 3. The lottery industry is a service industry, in which emotions are enormously experienced by customers/ players (Mageau et al. 2005; Zeelenberg and Pieters 2004). Hence, the lottery industry provides an appropriate context for examining both type I and type II emotions. Based on the questionnaire used in Study 1, which has included type I emotions, we add questions concerning type II emotions to it. Then, we distribute this "modified" questionnaire to customers in the lottery industry, which is similar to the method of data collection in Study 1. The data in Study 3 include 834 customers with 2,156 responses, consisting of 43.0% females. The average age of the respondents is 52 years old

with the standard deviation of 12.12 years. The majority of respondents (68.7%) earns between €30,000 and €60,000 per year.

4.3.3.1 Measurement of variables

Most measures in this study are identical to those in Study 1, including loyalty intentions, CEDs, type I emotions, and the relevant control variables. One difference is that type II emotions are measured. For the sake of simplicity in the questionnaire, we chose four specific emotions to measure positive and negative valence of type II emotions using seven-point scales (1: not at all, 7: strongly), which are based on the PANAS scale (Watson, Clark, and Telegen 1988). Being happy, enthusiastic, determined, and proud constituted measurements for positive valence. Being afraid, upset, nervous, and sad constituted measurements for negative valence.

The reliability (Cronbach's α) of the constructs is in general above 0.84, except .60 for value equity and .53 for brand equity (see Table 4.2). We find that (1) positive and negative valence of type I emotions (.004), (2) positive and negative valence of type II emotions (-.12), (3) type I and type II emotions (.27 for positive valence; .30 for negative valence) are not highly correlated to each other and are also not unidimensional. The CFA shows a marginally adequate model fit (RMSEA=.068, CFI=0.94, SRMR=0.07), indicating seven dimensions of value equity, brand equity, relationship equity, positive and negative valence of type I emotions, and positive and negative valence of type II emotions. Again, this shows that customer emotions and CEDs are distinct constructs and confirms the independence of positive and negative valence. Finally, the CMB is not a serious concern by using Harman's one-factor test (Podsakoff and Organ 1986), as the result shows multiple factors and there is also no dominant factor (33.2%) explaining the total variance.

4.3.3.2 Model specification and results

Type I emotions. By using the equations in Study 1, we tested the main and moderating effect of type I emotions. The results are shown in Table 4.6. The main effects of CEDs and positive valence are significant ($p < .01$): .67 for VE, .70 for BE, .92 for RE, and .29 for PV. However, the main effect of negative valence is not found (-.06, $p > .01$). The interactions of CEDs and type I emotions are among the mean-centered variables. The significant moderating effects of type I emotions are found in VE×PV (-.20, $p < .05$), RE×PV (-.13, $p < .1$), and VE×NV (.19, $p < .05$), but not in BE×PV (-.11, $p > .1$), BE×NV (-.09, $p > .1$), and RE×NV (.01, $p > .1$).

Type II emotions. To test the moderating role of type II emotions, we replaced type I emotions with type II emotions in Equation 1, 1.1, 1.2, 1.3, and 1.4. The main effects of CEDs are still significant ($p < .01$): .73 for VE, .79 for BE, and 1.11 for RE. The interactions of CEDs and type II emotions are among the mean-centered variables. Consistent with the experimental data in Study 2, we do not find the significant moderating effect of type II emotions in the lottery-industry data ($p > .1$): -.09 for VE×PV, -.14 for BE×PV, .01 for RE×PV, -.06 for VE×NV, -.06 for BE×NV, and .08 for RE×NV. These results further verify that we are less likely to find the moderating impact of type II emotions on loyalty decisions, compared to type I emotions.

Table 4.7 summarizes the results of examining emotions from Study 1, 2, and 3. It is generally found that type I emotions are more likely to have the moderating impact on the link of CEDs-loyalty than type II emotions. Positive valence of type I emotions tend to weaken the effects of CEDs, and negative valence of type I emotions tend to strengthen the effects of CEDs. Additionally, type I emotions are likely to influence loyalty intentions beyond CEDs.

Table 4.5 Two levels for Customer Equity Drivers (CEDs) and the Conjoint Design

CEDs	Levels	Description
Value equity	+	The quality-price ratio of *Spector* is good and it is convenient to buy and use *Spector*'s services.
	-	The quality-price ratio of *Spector* is just reasonable. It takes some effort to buy and use its services.
Brand equity	+	*Spector* has a strong and innovative brand.
	-	*Spector* is just an average brand and not especially innovative.
Relationship	+	I am a special customer for *Spector* and they exactly know what I want.
equity	-	I am just a customer for *Spector* and they partly know what I want.

Conjoint design

Conditions	Value equity	Brand equity	Relationship equity
A	+	-	+
B	-	+	+
C	+	+	-
D	-	-	+
E	-	+	-
F	+	-	-

Table 4.6 Results of the Experimental Data (Study 2) and the Lottery-Industry Data (Study 3), Function of Loyalty Intentions

Variables	Experimental data	Lottery-industry data	
		Type I emotions	Type II emotions
VE	1.01(.05)***	.67(.14)***	.73(.14)***
BE	.59(.05)***	.70(.13) ***	.79(.13) ***
RE	.49(.05)***	.92(.13) ***	1.11(.11) ***
PV	-.14 (.20)[c]	.29(.11) ***	-.08(.11)
NV	-.21(.19)[c]	-.06(.09)	.06(.10)
VE×PV	-.09(.12)	-.20(.09)**	-.09(.10)
BE×PV	-.01(.12)	-.11(.08)	-.14(.10)
RE×PV	.02(.12)	-.13(.07)*	.01(.08)
VE×NV	.04(.12)	.19(.08)**	-.06(.10)
BE×NV	-.03(.12)	-.09(.07)	-.06(.09)
RE×NV	-.11(.12)	.01(.06)	.08(.08)
Gender (female)	n.a.	.43(.27)	.48(.28)*
Age	n.a.	.01(.01)	.003(.01)
Income	n.a.	.05(.15)	.06(.05)
Relationship length	n.a.	.15(.05)***	.16(.05)***
Switching costs	n.a.	-.06(.08)	-07(.08)
Involvement	n.a.	-.25(.11)**	-.24(.11)**
CC	n.a.	-.20(.15)	-.16(.15)
Constant	7.67(.08)***	-3.33(1.17)***	-3.74(1.20)***
LL[a]: null model[b]	-2143.99	-6712.41	-6712.41
LL[a]	-1970.96	-6491.40	-6505.57
Sample size (level one)	1098	2156	2156
Sample size (level two)	183	834	834

***p-value < 0.01; ** p-value < 0.05; * p-value < 0.1 (two-tailed)
VE: value equity; BE: brand equity; RE: relationship equity; PV: positive valence; NV: negative valence
[a]: The abbreviation of Log Likelihood.
[b]: A null model includes only the random intercept, level-one and level-two residuals.
[c]: The reference group is the neutral condition.
n.a.: not available

4.4 Discussion

4.4.1 Theoretical implications

This study investigates the interactions and joint effect of CEDs and customer emotions in the context of customer loyalty. Our results show that (1) type I emotions have the moderating impact on the link of CEDs and loyalty, but type II emotions do not; (2) CEDs are differentially effective for creating customer loyalty, depending on valence of type I emotions; (3) type I emotions influence customer loyalty beyond CEDs. We will further discuss these results in detail.

Table 4.7 Summary of the Results of Examining Emotions in Study 1, 2, and 3

	Study 1	Study 2	Study 3
Main effect			
Positive valence of type I emoitons	✓	n.a.	✓
Negative valence of type I emoitons	✓	n.a.	×
Moderating effect: type I emotions			
VE×PV	✓	n.a.	✓
BE×PV	✓	n.a.	×
RE×PV	✓	n.a.	✓
VE×NV	✓	n.a.	✓
BE×NV	✓	n.a.	×
RE×NV	✓	n.a.	×
Moderating effect: type II emotions			
VE×PV	n.a.	×	×
BE×PV	n.a.	×	×
RE×PV	n.a.	×	×
VE×NV	n.a.	×	×
BE×NV	n.a.	×	×
RE×NV	n.a.	×	×

VE: value equity; BE: brand equity; RE: relationship equity; PV: positive valence; NV: negative valence
n.a.: not available

Difference between type I and type II emotions. Our data show that type I emotions are more likely to have the moderating impact on the CEDs-loyalty link than type II emotions, even though these two types of emotions influence information processing similarly (e.g., Bless et al. 1996). As discussed, the difference may be attributed to the extent to which type I and type II emotions are perceived to be relevant to firms. The difference in perceiving relevance may become more salient for customers in making loyalty decisions. Customer loyalty involves decisions dependent on a process of long-term exchanges between firms and customers and an outcome of customers' cumulative evaluations of the focal firm (Fullerton 2003; Morgan and Hunt 1994; Oliver 1999). This implies that customers who make loyalty decisions should rely

more on well-established evaluation systems, such as perceived CEDs, and less on invalid sources, such as type II emotions. In contrast, type I emotions are justified to be relevant to the focal firm, as they are managed by the focal firm and perceived as a valid source of loyalty decisions (Pham 2007). Hence, this may explain why we find that type I emotions are more likely to influence the impact of CEDs on customer loyalty than type II emotions.

Moderating effect of type I emotions. We find that CEDs are differentially effective, depending on valence of type I emotions, which is well explained by the global-local style of information processing (e.g., Bless et al. 1996; Förster, Liberman, and Kuschel 2008). The finding indicates that positive valence of type I emotions and CEDs are substitutes, implying that it is less effective to invest in strategies of type I emotions and CEDs at the same time for creating customer loyalty. In contrast, customers with negative valence tend to pay more attention to CEDs. This supports the initial finding of Smith and Bolton (2002) in the customer satisfaction literature: customers with negative valence tend to use cognitive antecedents (e.g., disconfirmation and justice) to evaluate satisfaction more so than those with less negative or neutral valence. We further extend their finding in the context of customer loyalty by including value equity, brand equity, and relationship equity as additional cognitive antecedents. In a strategic perspective, the positive interactions of negative valence and CEDs imply that while negative valence is harmful to customer loyalty, positively perceived CEDs may buffer the negativity. This will be elaborated in the section on managerial implications.

Main effect of type I emotions. Our results illustrate the main effects of type I emotions for creating loyalty when CEDs are simultaneously taken into account. The impact of type I emotions on decision-making is explained by "feeling-is-for-doing" (Pham et al. 2001;

Zeelenberg et al. 2008). We further show that positive and negative valence of type I emotions are two independent loyalty drivers, consistent with the notion that positive and negative valence are independent dimensions underlying emotions and should be measured in unipolar scales (e.g., Diener and Emmons 1985; Goldstein and Strube 1994). This also means that the absence of positive valence is not always meant to be the presence of negative valence (Bagozzi, Baumgartner, and Pieters 1998; Warr, Barter, and Brownbridge 1983).

Although the independence of positive and negative valence underlying emotions has been well established in the literature, one unsolved issue is why positive and negative valence are independent (Warr, Barter, and Brownbridge 1983). An important potential explanation lies in desired and undesired episodes evoking positive and negative valence, respectively, which may not be related to each other (Warr, Barter, and Brownbridge 1983). For example, a customer can be annoyed by a frontline employee of Firm A, but impressed by the involvement of Firm A in high ethical standards of doing business. The example shows that the undesired (annoyed staff) and desired episodes (high ethical standards) are not exactly correlated. In the end, evoked positive and negative valence may independently co-exist within this customer and jointly explain the variance of loyalty decisions. This potential explanation needs to be empirically tested for giving deeper insight into and solid evidence of the independence of positive and negative valence.

4.4.2 Managerial implications

Type II emotions. Firms may benefit from transforming type II emotions into type I emotions, as positive valence of type I emotions have a positive impact on customer loyalty. This is what the Inn at Little Washington, a five-star inn and restaurant, is doing to maintain or even enhance

customer loyalty (ASAE 2006). When customers arrive at the Inn, the staff members directly inspect customers' original emotions (i.e., type II emotions) based on a ten-point scale (from an angry "one" to ecstatic "ten"). If customers note negative valence, the staff members need to cheer up customers and make sure that none of these customers leave with a score under nine; in other words, they seek to transform negative valence of type II emotions to positive valence of type I emotions. The secrets to cheering up customers are, for example, extra courses or free wine/ champagne. In this way, the Inn transforms negative valence of type II emotions to positive valence of type I emotions and wins customer loyalty in the end.

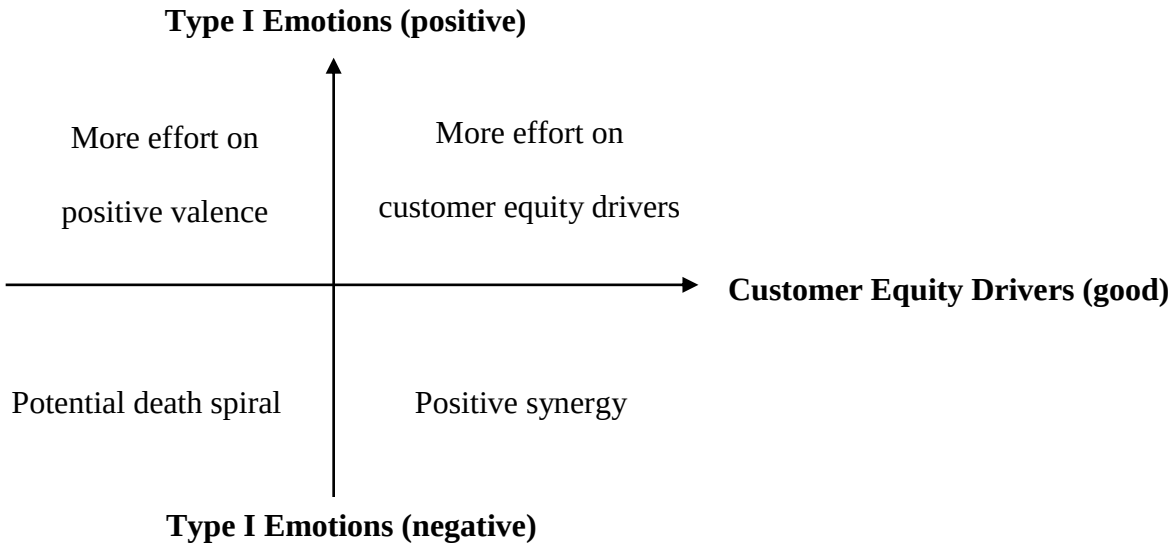
Type I emotions. Managers often face two problems with allocating limited resources: (1) a better understanding of substitutability and complementarity of marketing strategies (Siggelkow 2002) and (2) effective trade-offs of competing marketing strategies (Rust, Lemon, and Zeithaml 2004). In terms of the first problem, substitutability leads to ineffective allocation, but complementarity leads to strategic synergy. Since managing customer emotions are becoming popular, which has been extensively discussed in media and adopted by firms (e.g., BBC 2011; Forbes 2012; NBC 2005), it is crucial that managers form a deeper understanding of how to combine strategies of type I emotions and the existing and commonly loyalty strategies (e.g., CEDs). Figure 4.3 provides potential guidance by combining type I emotions (y-axis) and the performance profile of the firm based on CEDs (x-axis). In Quadrant I, given a firm with a good performance profile, it should avoid managing both positive valence of type I emotions and CEDs simultaneously when creating customer loyalty, as the result could be negative synergy. In Quadrant II, given a firm with a slightly lower performance profile, managing positive valence may protect firms from what they have not done well because customers with positive valence

pay less attention to the performance profile of the firm. In this sense, positive valence is probably a useful loyalty tool for brands losing market strength, for new brands, or for industries in which differentiation is less likely to reach. Take the example of Netflix in the Netherlands in 2013. Netflix is an American Internet-streaming media that introduced itself to the Dutch market in 2013. Since Netflix is a new player for the Dutch population, one of Netflix's marketing strategies is to use several funny YouTube videos to elicit positive valence of type I emotions in the hope of attracting potential new customers. Being in Quadrant III may be a warning for the firm, as it scores low in the performance profile and is not able to manage customers' negative valence. To avoid the potential death spiral, firms should make an effort to either enhance the performance profile or decrease negative emotions. In Quadrant IV, firms have a good performance profile, and although their customers experience undesired episodes, these customers still tend to stay. This is probably a very important finding for service industries. Services have the nature of heterogeneity, meaning that service quality and service encounters frequently vary across different frontline employees or from day to day (Bitner, Booms and Tetreault 1990; Parasuraman, Zeithaml, and Berry 1985). To buffer the negativity resulted from uncontrollable bad services, we suggest that managers strive to maintain or even improve their performance profile.

In terms of the second problem (i.e., trade-offs), customer emotions apparently become competing strategies with CEDs to create customer loyalty. Our results point out that emotions are also effective at enhancing customer loyalty. For example, when increasing one unit of positive valence or decreasing one unit of negative valence, firms are able to increase loyalty intentions by 11.2% or 8.3%, respectively. Meanwhile, when increasing one unit of value equity,

brand equity, and relationship equity, loyalty intentions can be increased by 9.1%, 9.9%, and 13.4%, respectively. One unit refers to one standard deviation above the average score of these

Figure 4.3 Potential Strategies of Combining Customer Equity Drivers and Type I Emotions



drivers. These numbers can be one of the references for managers when considering trade-offs of these competing loyalty strategies, depending on how firm performance is measured. Additionally, our results indicate that positive and negative valence of type I emotions are two independent loyalty drivers. From this, managers can infer that generating stronger positive valence is not the only way to enhance customer loyalty, as avoiding stronger negative valence can also be effective. For example, managers may have opportunities to remedy bad services by doing well in service recovery, which has been generally found to increase customer loyalty (e.g., Liao 2007; Smith, Bolton, and Wagner 1999).

4.4.3 Limitations and future research

There are some limitations to this study that require further investigation and also provide avenues for further research. First, the data are cross-sectional. Homburg, Koschate, and Hoyer (2006) find that the judgment pattern of the main effects of emotions decreases on satisfaction over time. Hence, one unsolved question is whether the moderating role of type I emotions also decreases over time, since customers have accumulated sufficient informative knowledge over time. Second, we initially examined the moderating role of type II emotions in two industries: mobile phone services and the lottery industry. Our finding should be further verified and examined in other industries in order to substantiate the generalization. If the moderating impact of type II emotions can be found in other industries, it would be interesting to then ask whether the variance of the moderating impact depends on industry characteristics. In addition, the type II emotions we tested were evoked before the point of purchase. When type II emotions are evoked at the point of purchase, they may be more likely to yield a moderating impact, as they are easily misattributed by customers and carried over to purchase decisions (Lerner, Small, and Loewenstein 2004). This would constitute the other approach to validating the moderating impact of type II emotions. Third, as previously discussed, little is known about why positive and negative valence are two independent constructs. One direction is to examine whether episodes evoking positive and negative valence respectively are independent from each other and in turn lead to the independence of positive and negative valence. The examination is crucial for obtaining more solid evidence of the supposed independence in the emotion literature. Finally, while the global-local style well explains the moderating role of customer emotions, it may be interesting to examine an alternative explanation (i.e., the holistic-analytical style). This

alternative mechanism is crucial for extending our findings to a cross-cultural context, as the holistic-analytic style is highly related to cultural differences (Monga and John 2008). Monga and John (2008) find that the harm of negative publicity (e.g., lower brand equity) is mitigated by holistic thinking, meaning a negative interaction of brand equity and holistic thinking. While our data demonstrated that brand equity and positive valence of type I emotions have a negative interaction, this may imply a correlation between positive valence and holistic thinking. Hence, two open questions are offered: (1) is the holistic-analytic style an alternative mechanism of the moderating role of customer emotions? (2) To what extent can the moderating impact of customer emotions be applied to different cultures?

In conclusion, this research provides deeper insight into the moderating impacts of type I and type II emotions and the main effects of type I emotions on the CEDs-loyalty link. The findings suggest how managers can combine strategies of CEDs and type I and type II emotions in an effective way for creating customer loyalty.